

AUG. 12 2002

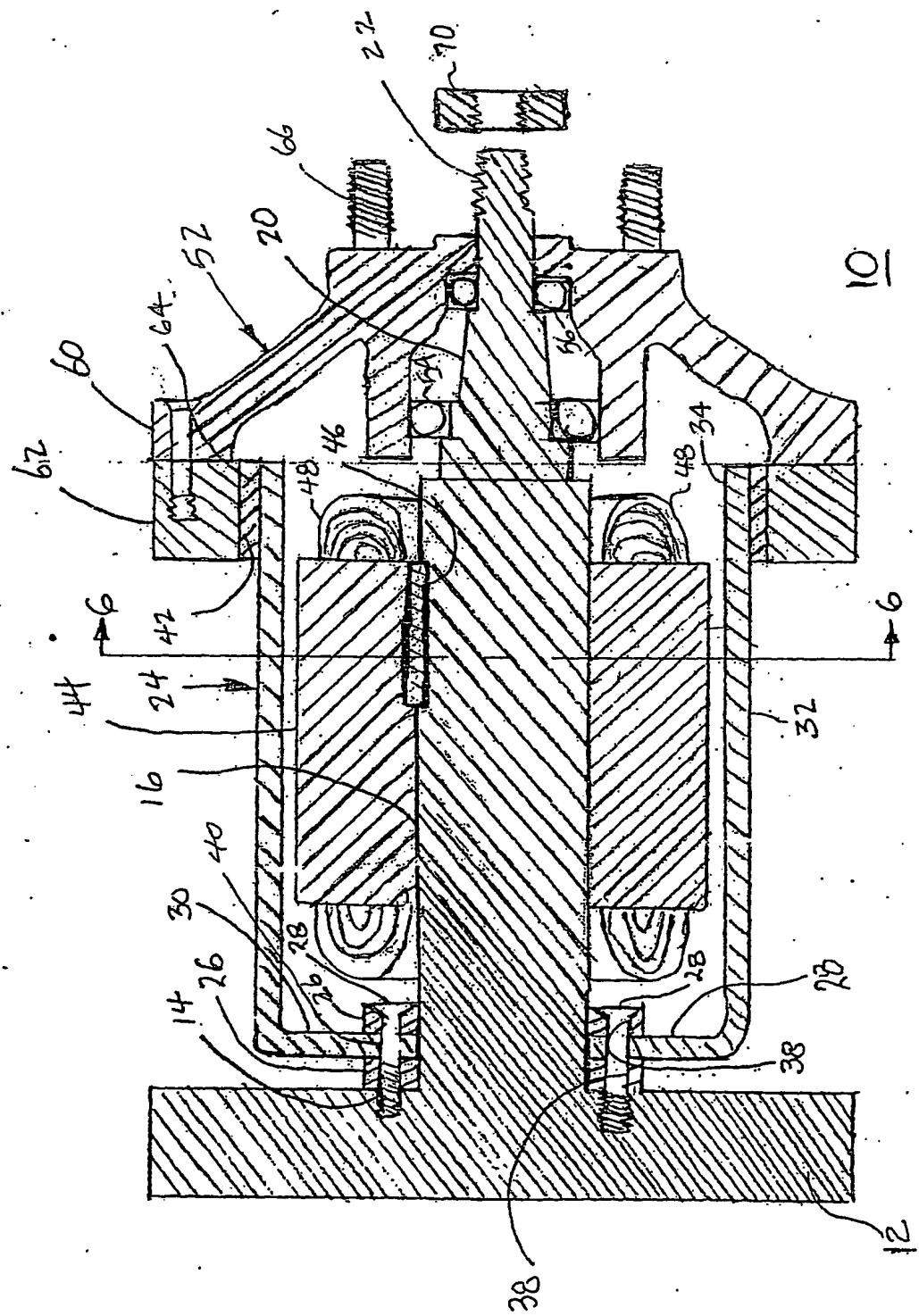


FIGURE 1

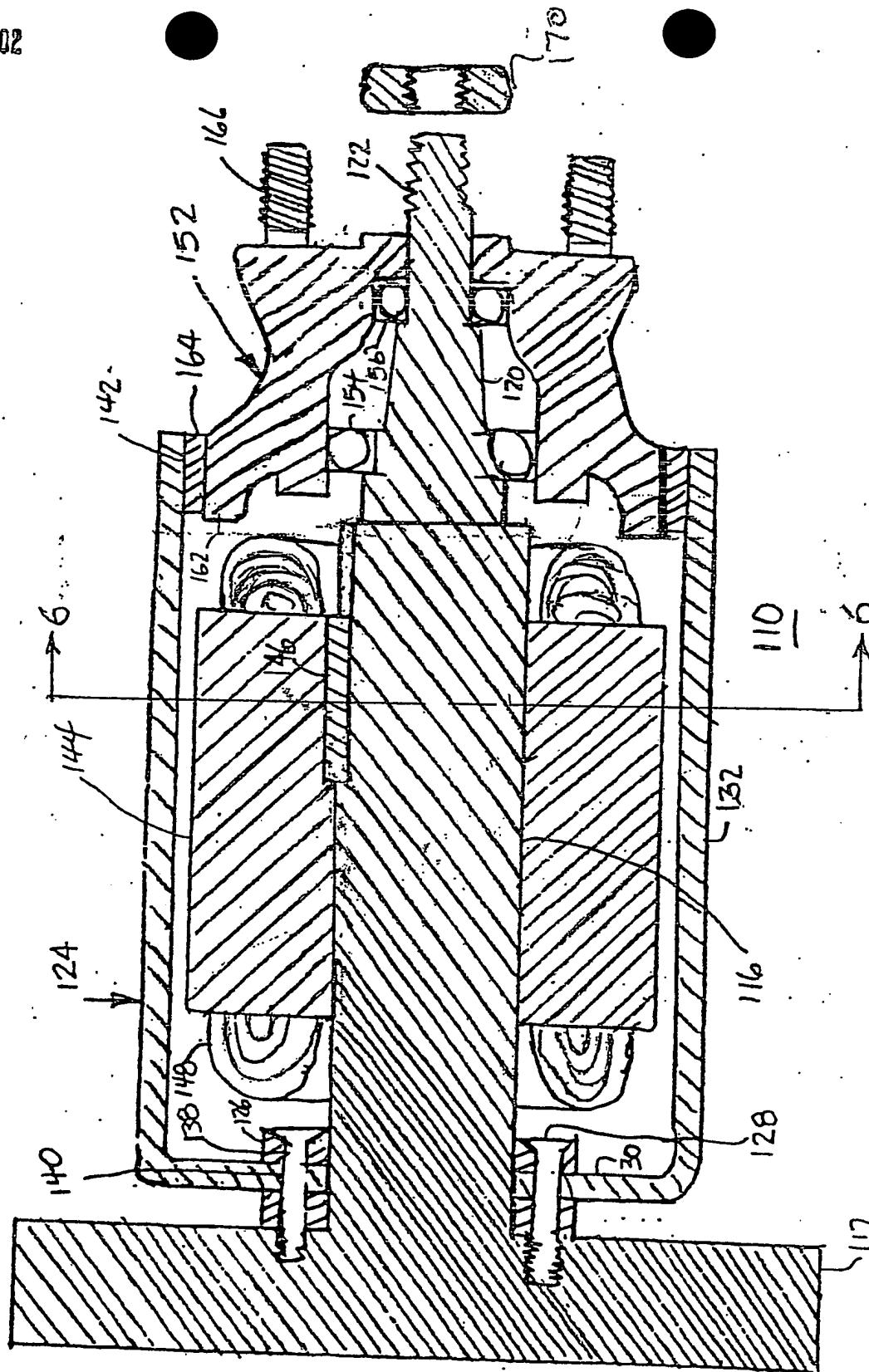


FIGURE 2

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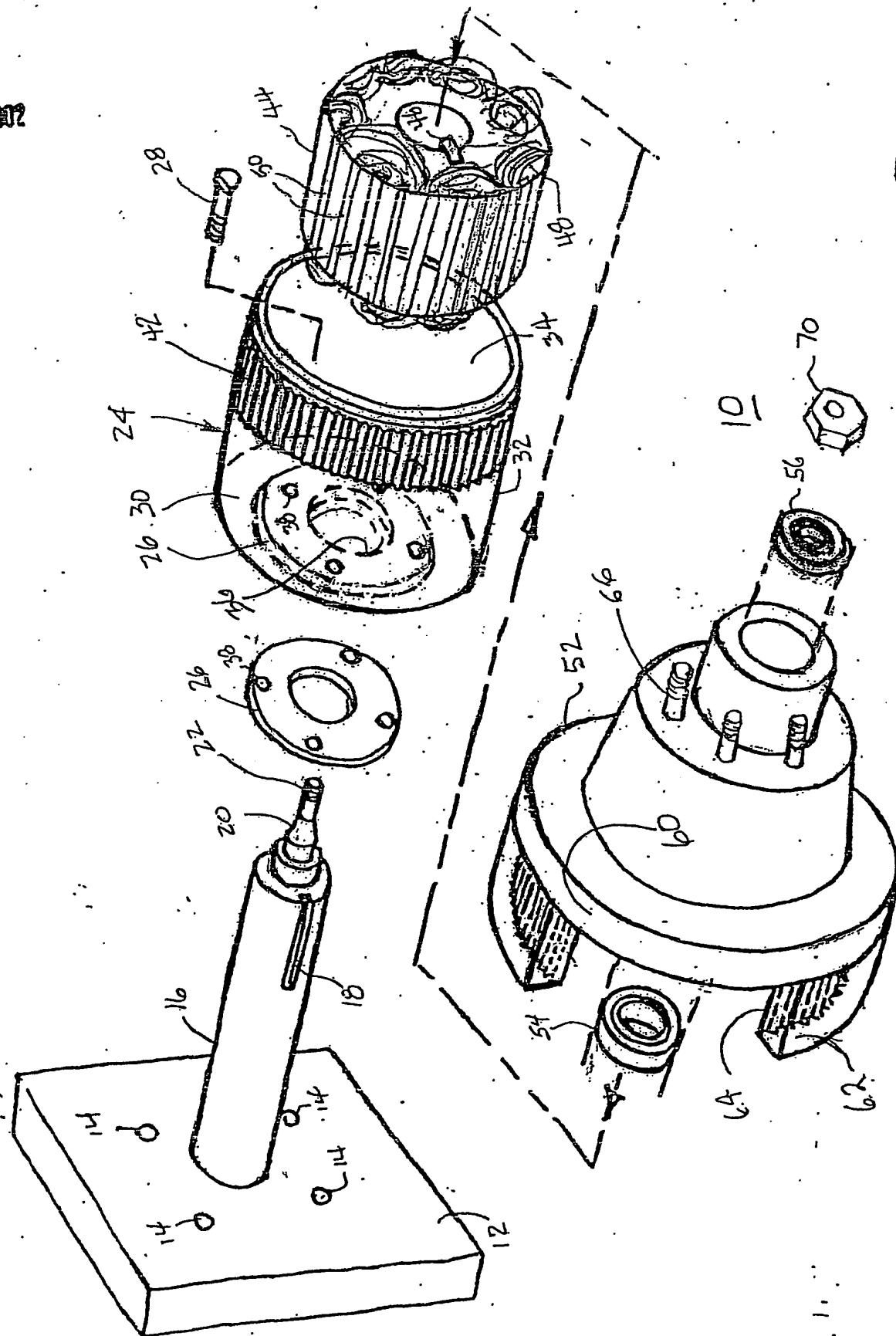
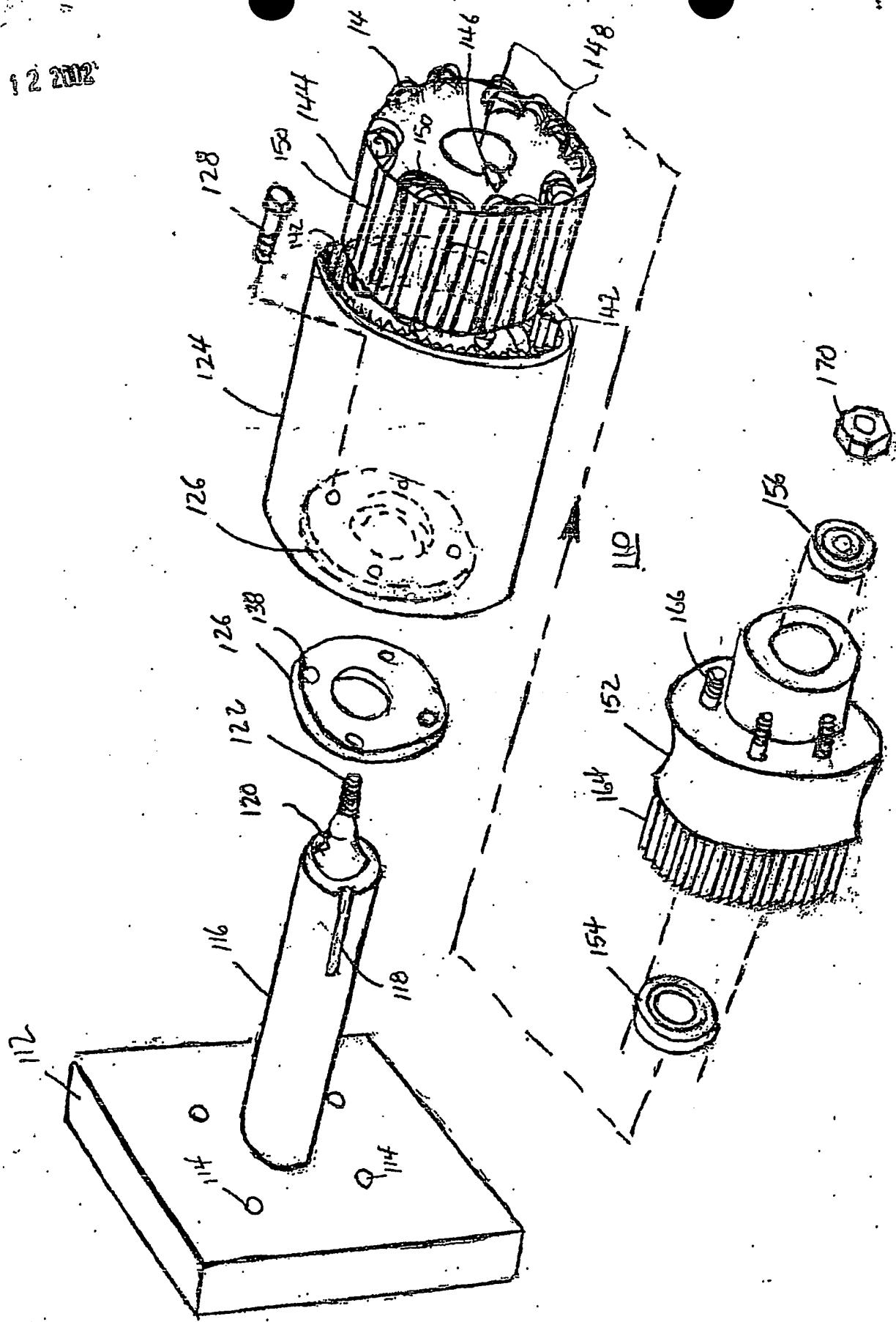


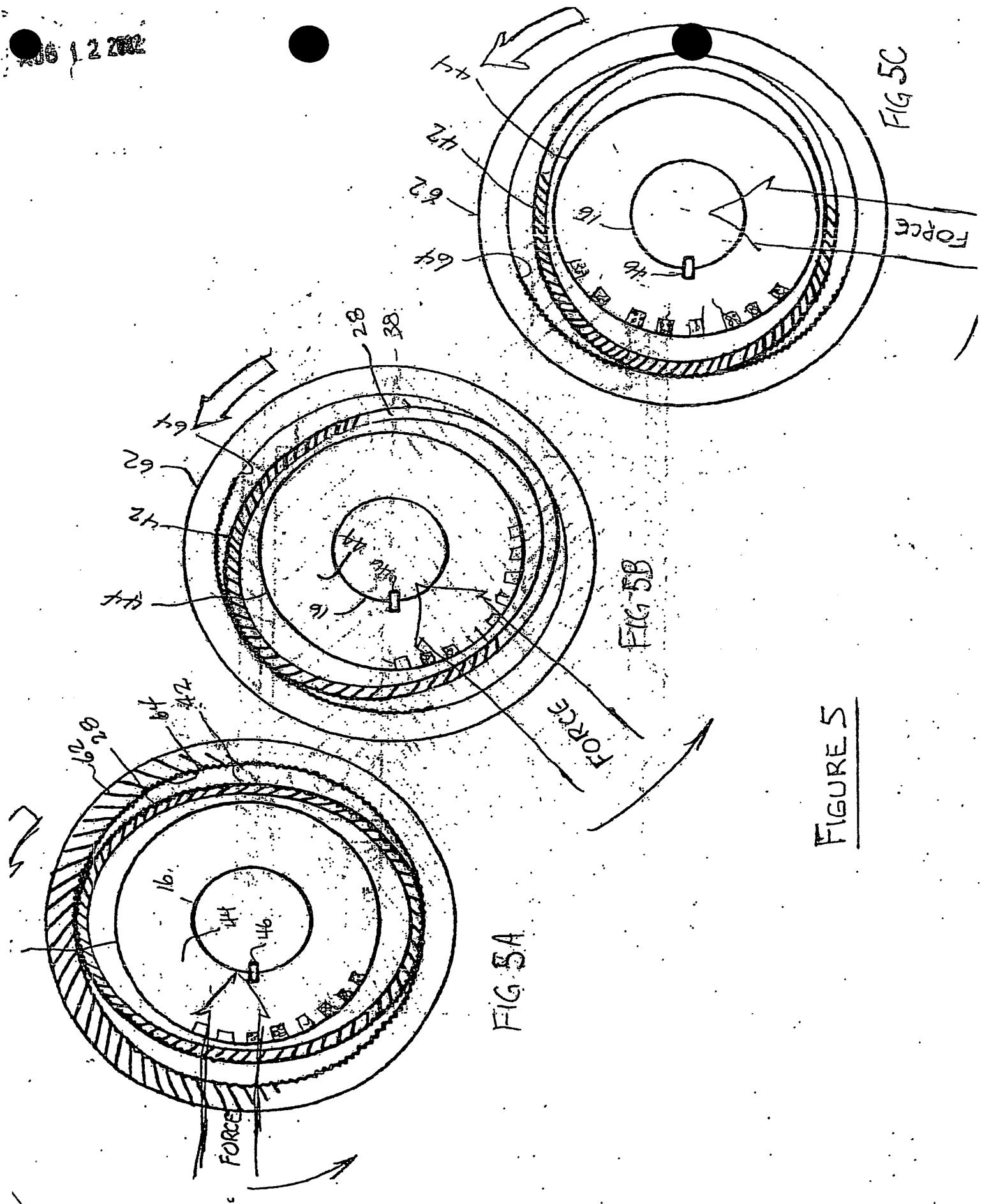
FIGURE 3

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FIGURE 4



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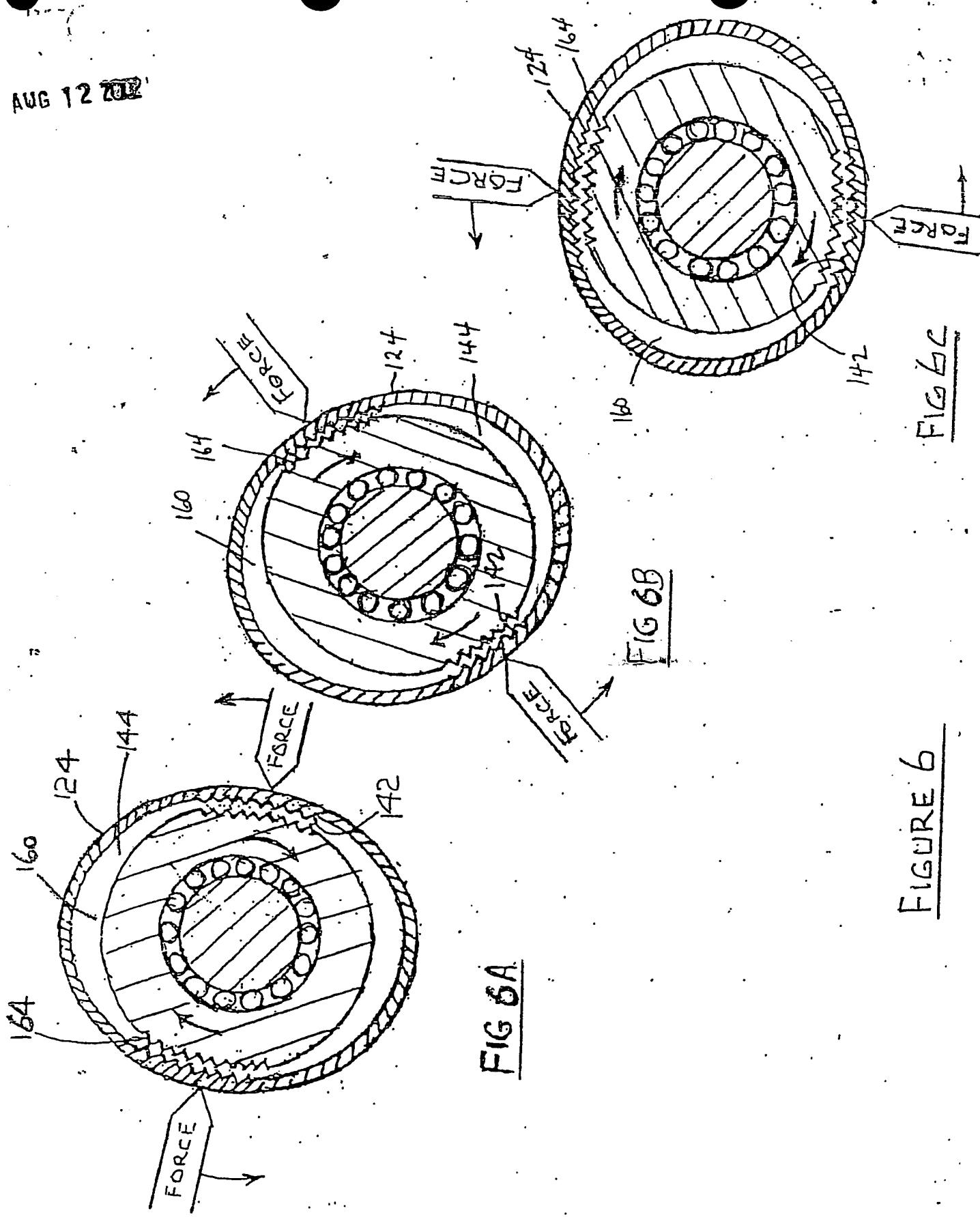


FIGURE 6

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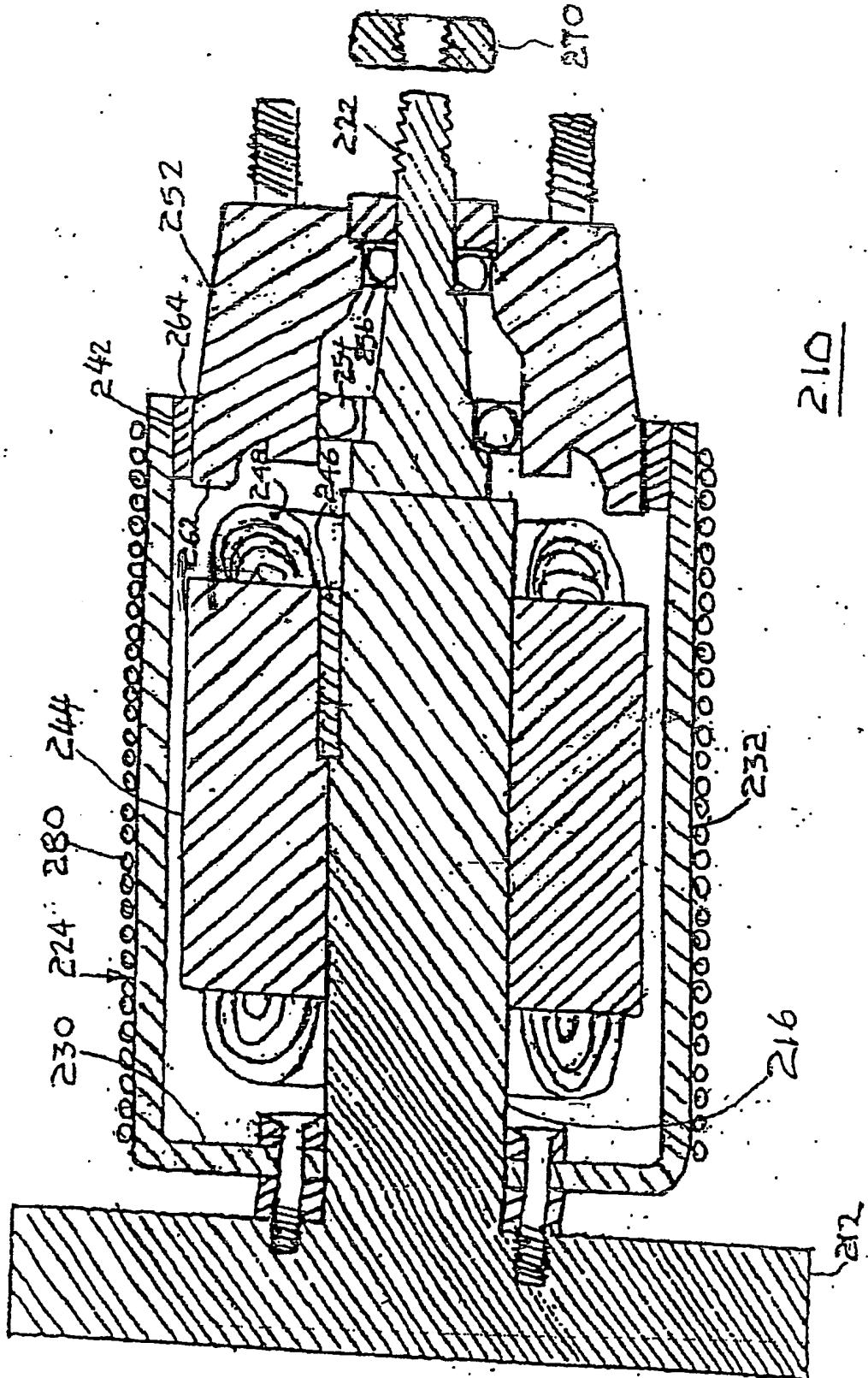


FIGURE 7

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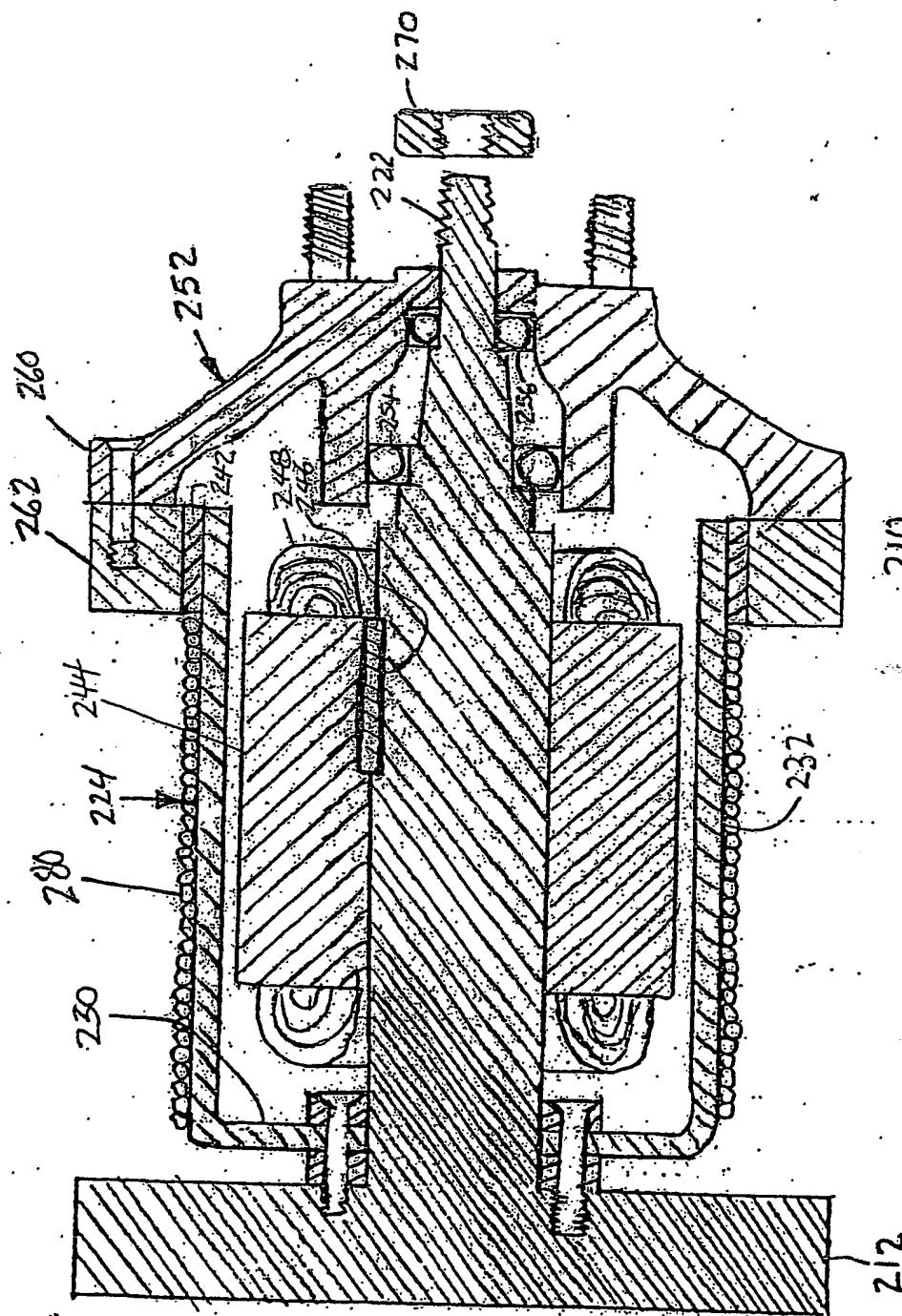
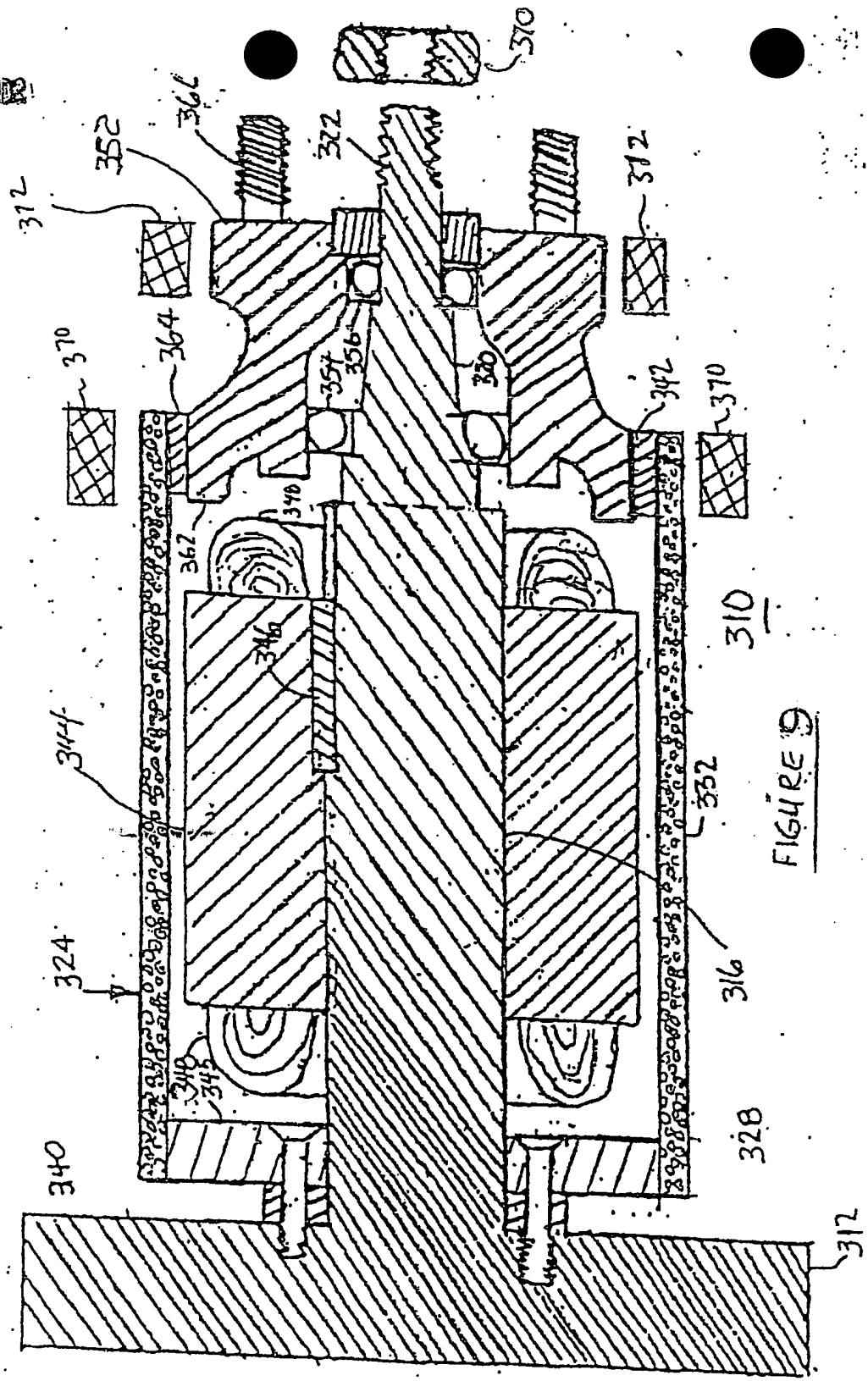
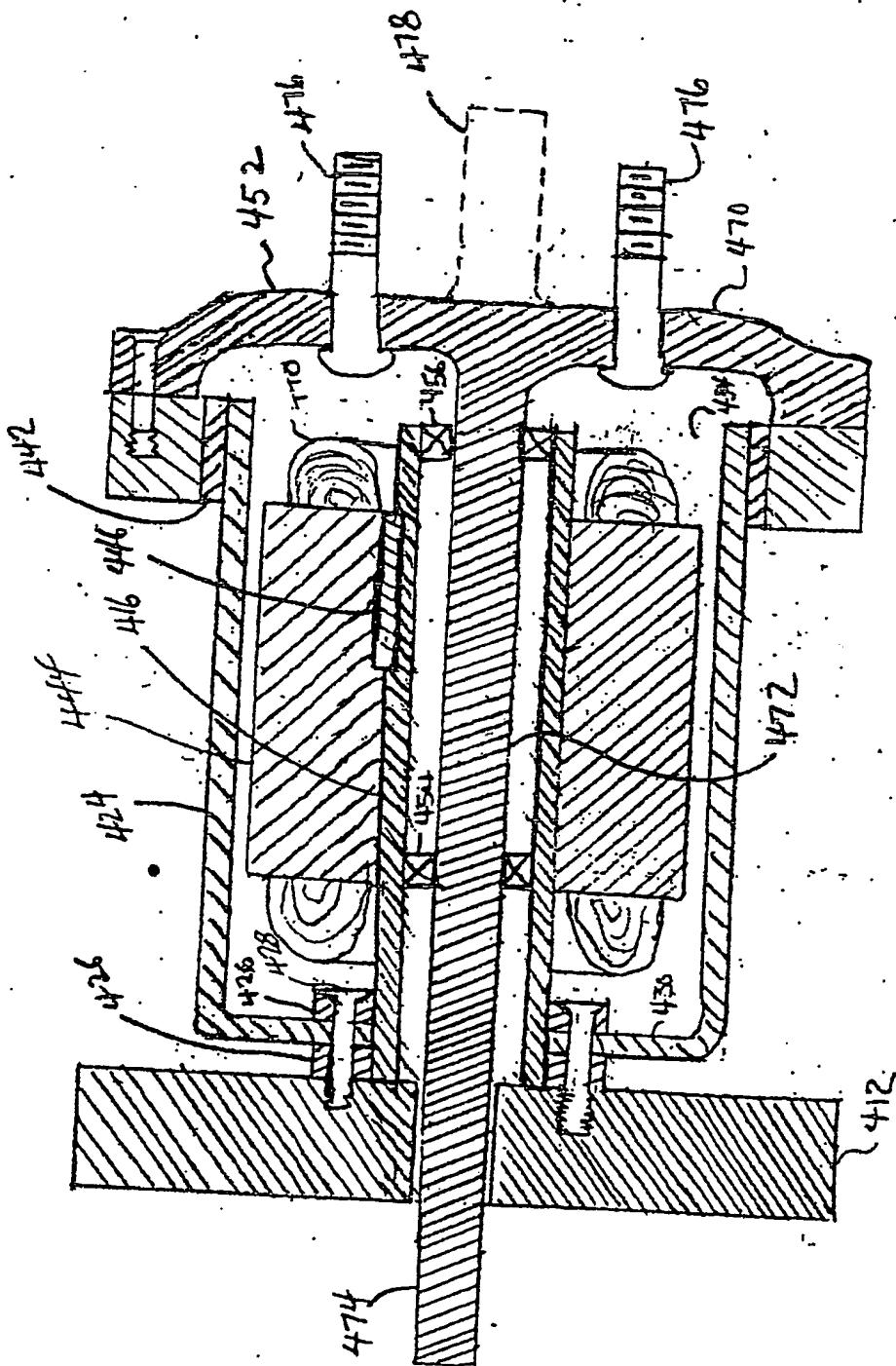


FIGURE 8

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FIG 10

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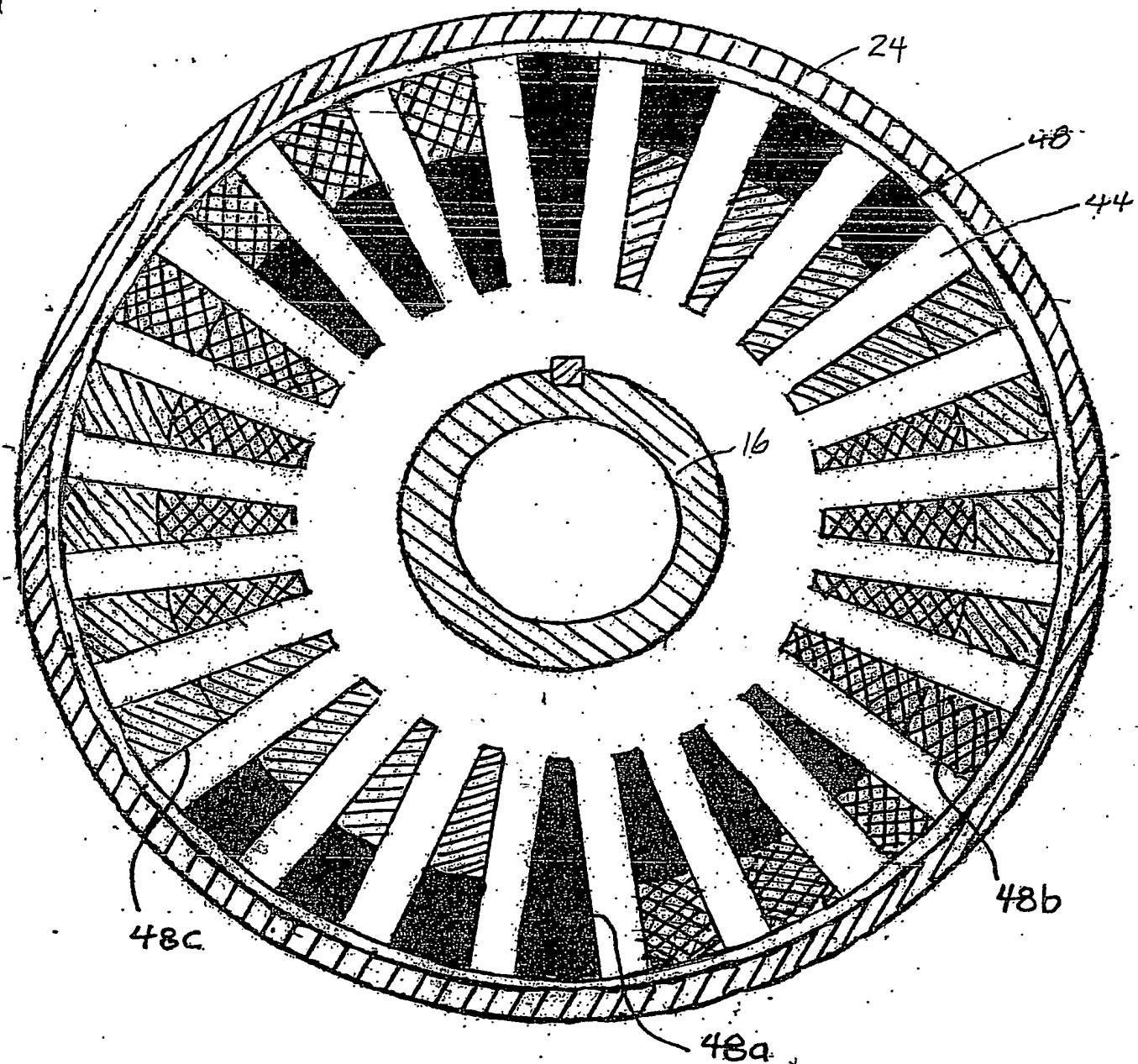


FIGURE 11

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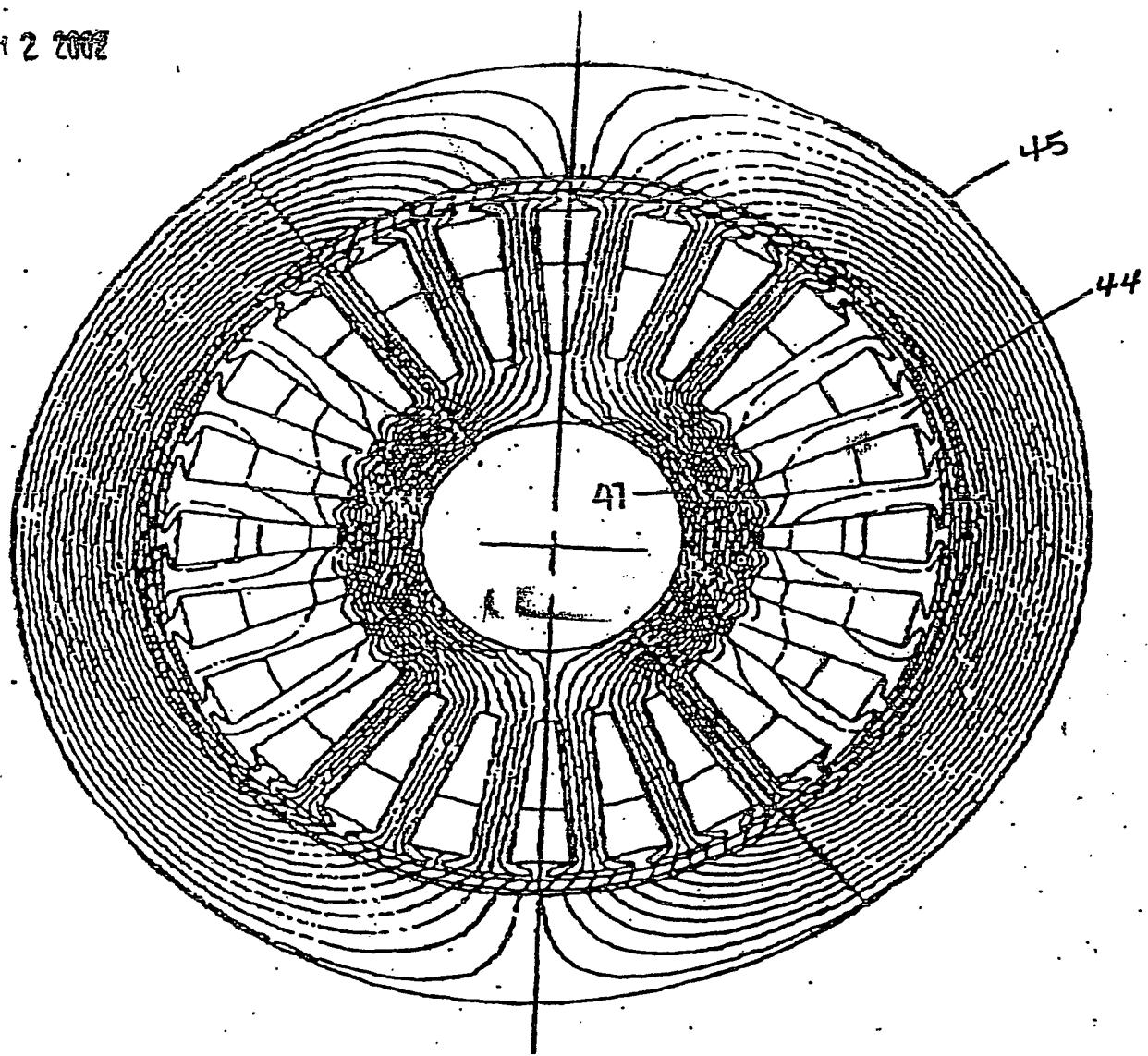


FIGURE 12

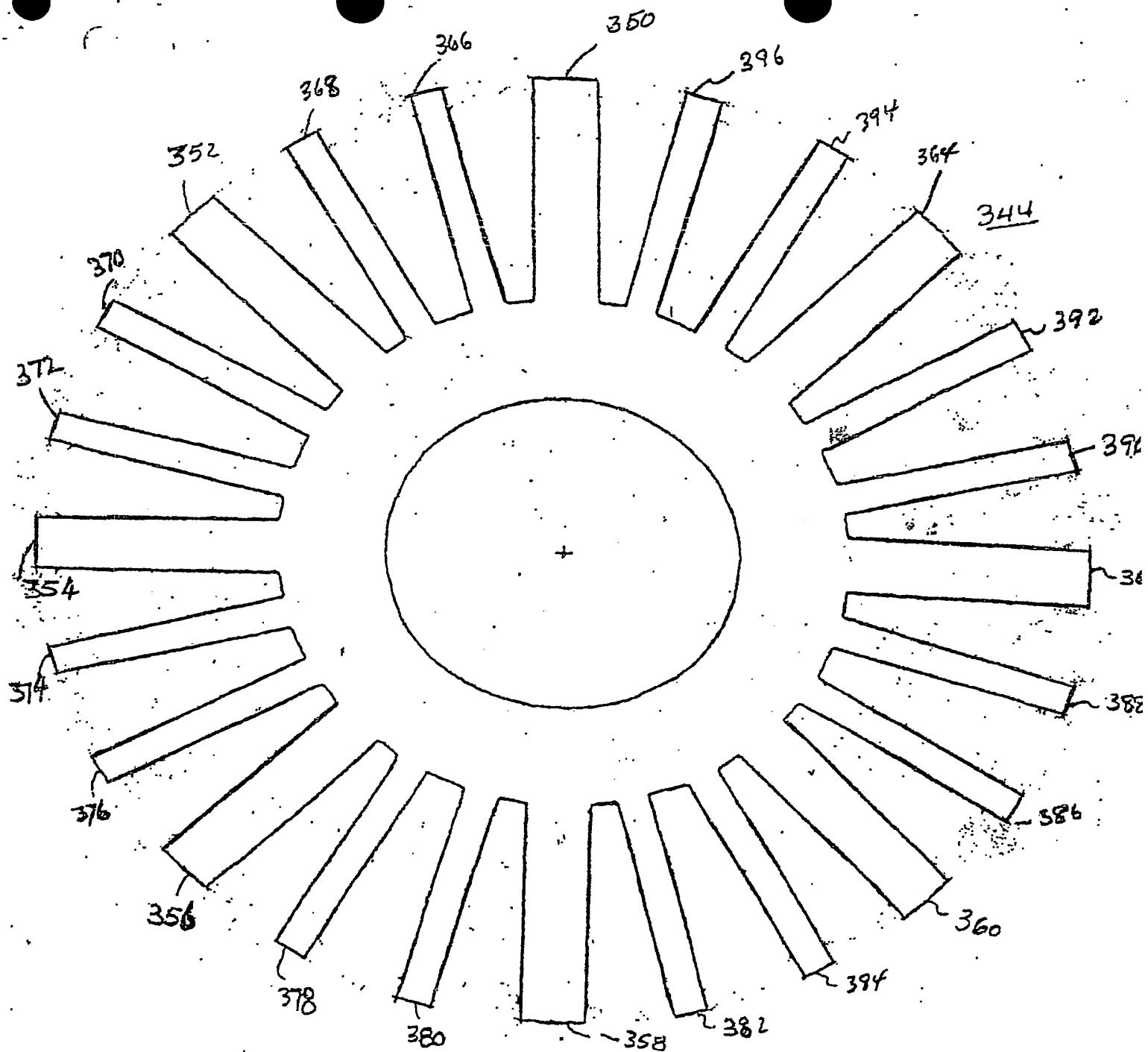


FIGURE 13

-AUG 14 1983

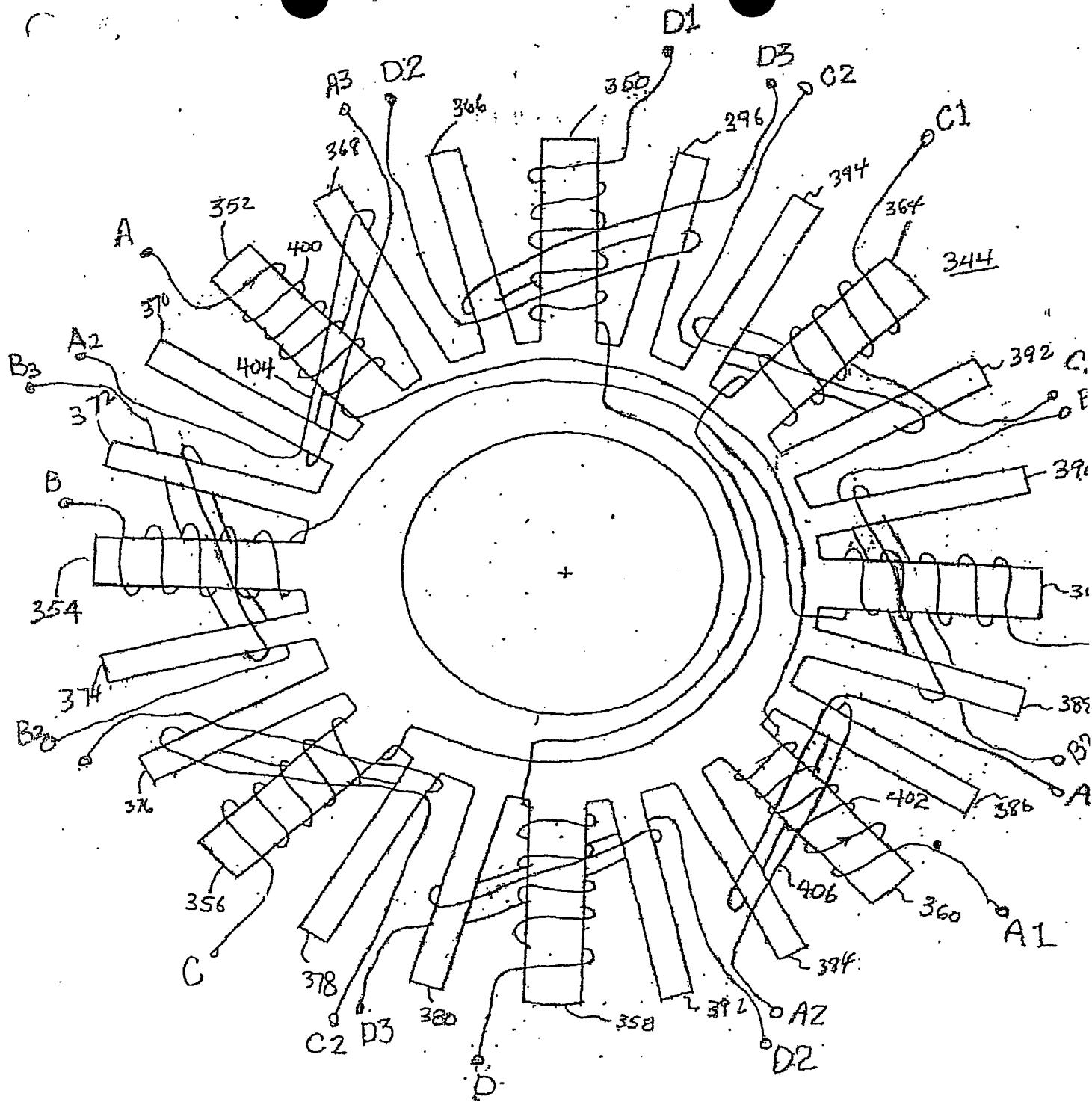


FIGURE 14

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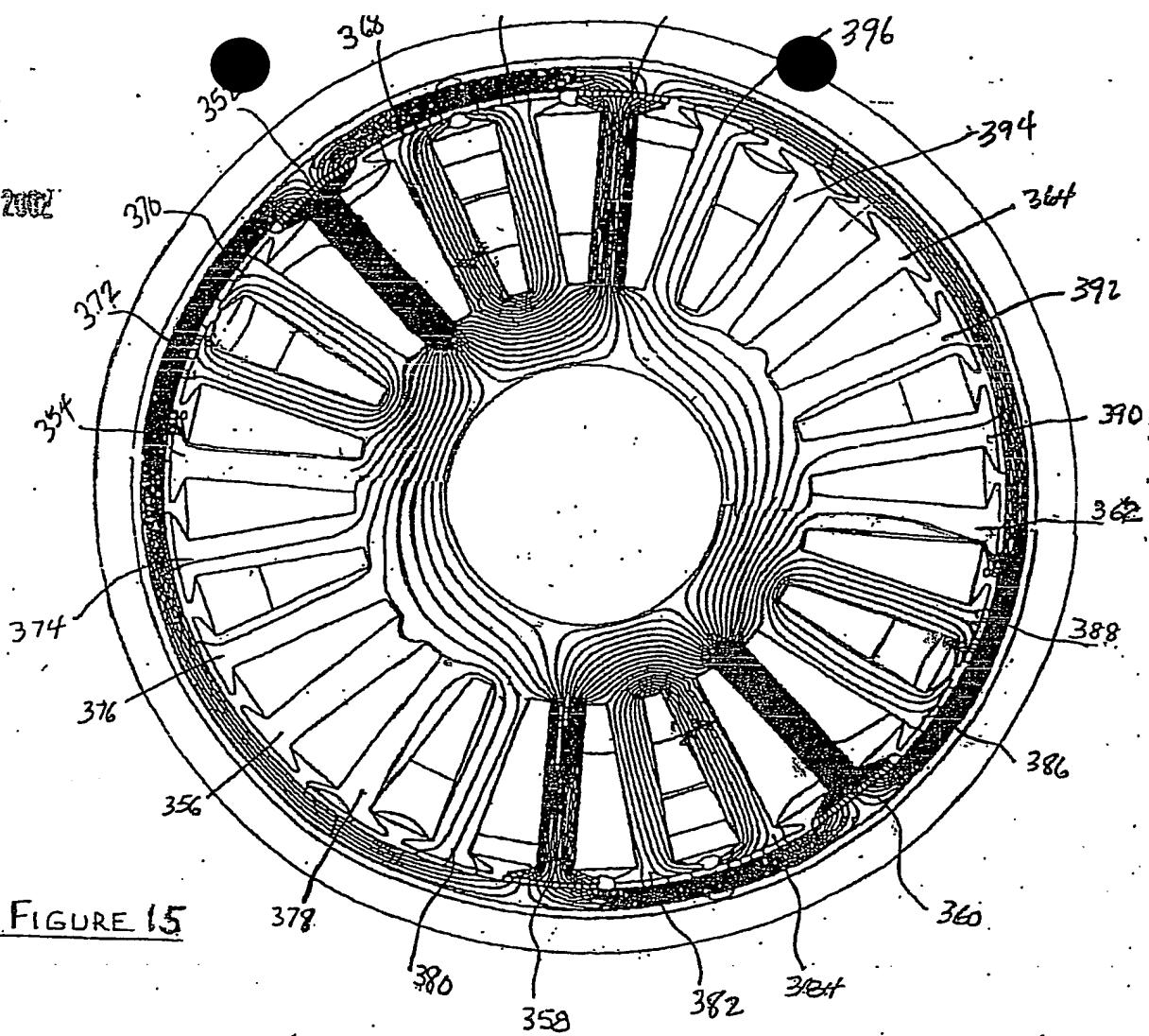


FIGURE 15

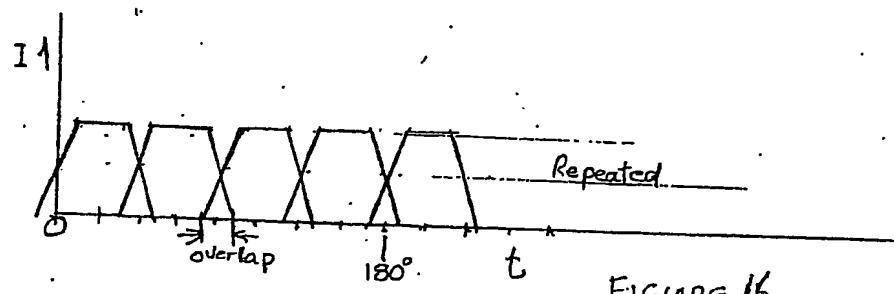


FIGURE 16

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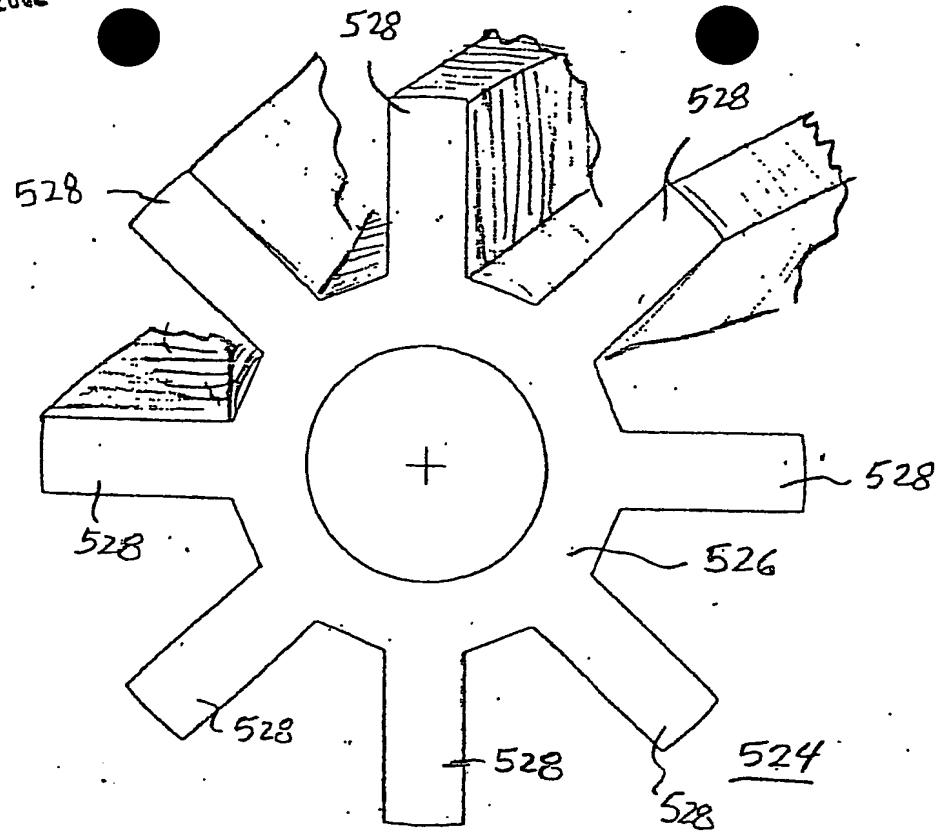


FIGURE 17

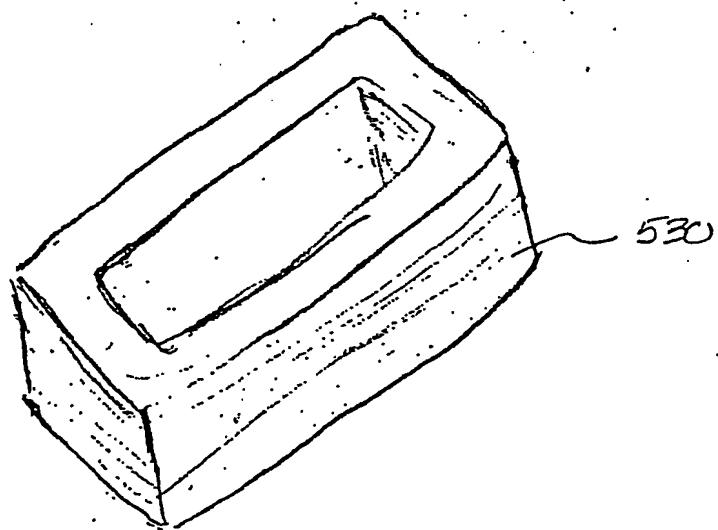


FIGURE 18

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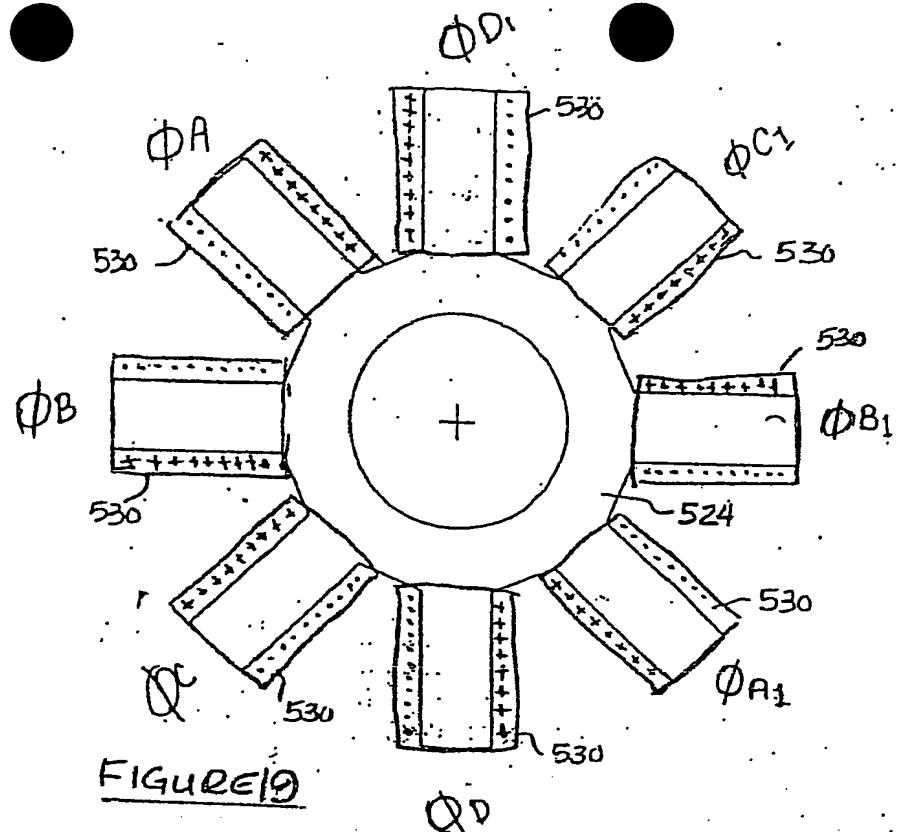


FIGURE 19

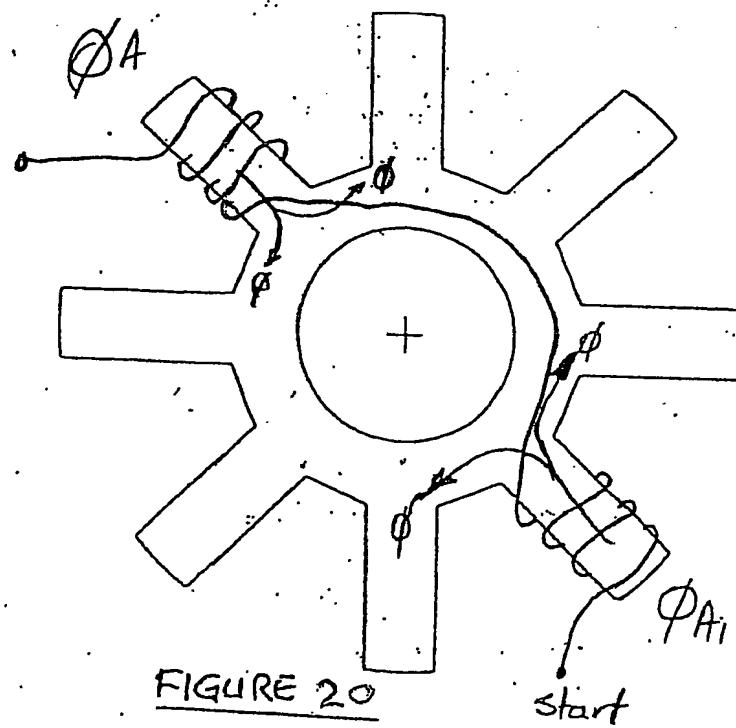


FIGURE 20

AUG 12 2002

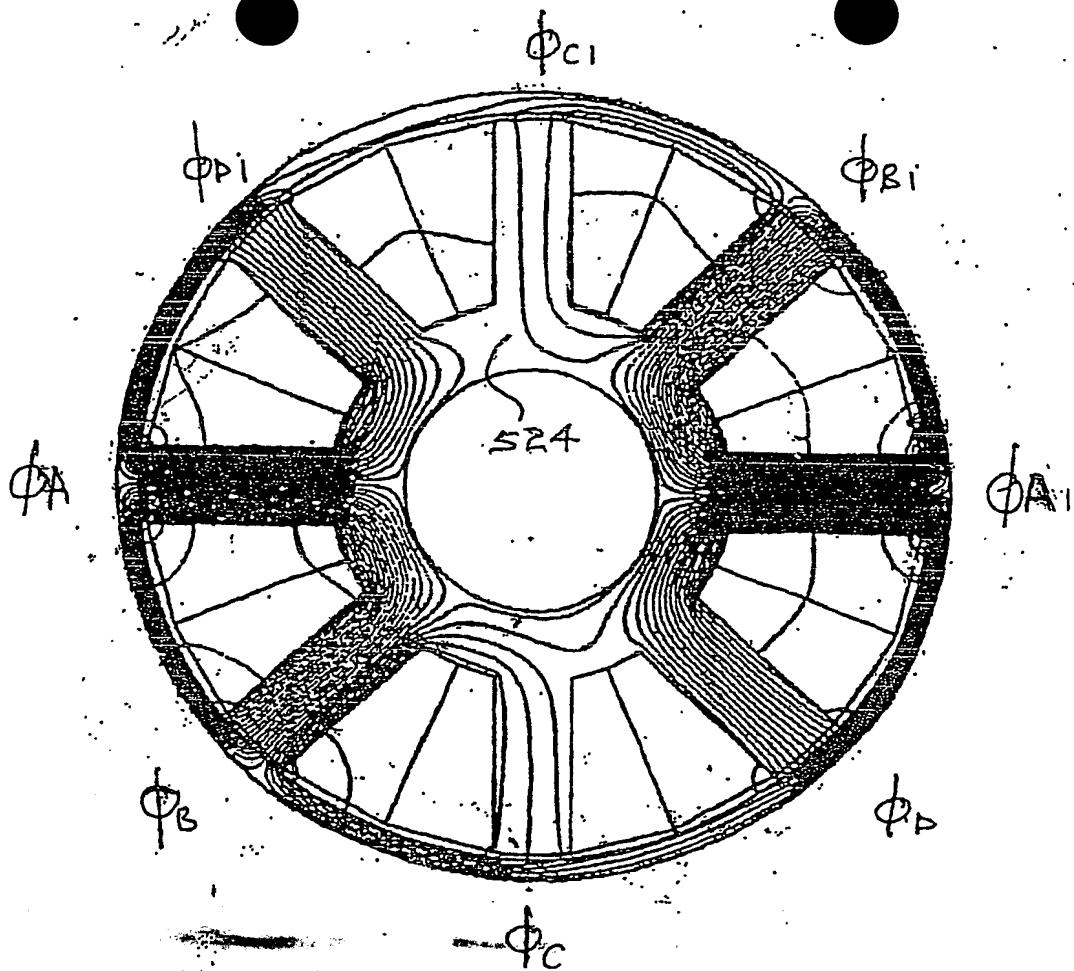


FIGURE 21

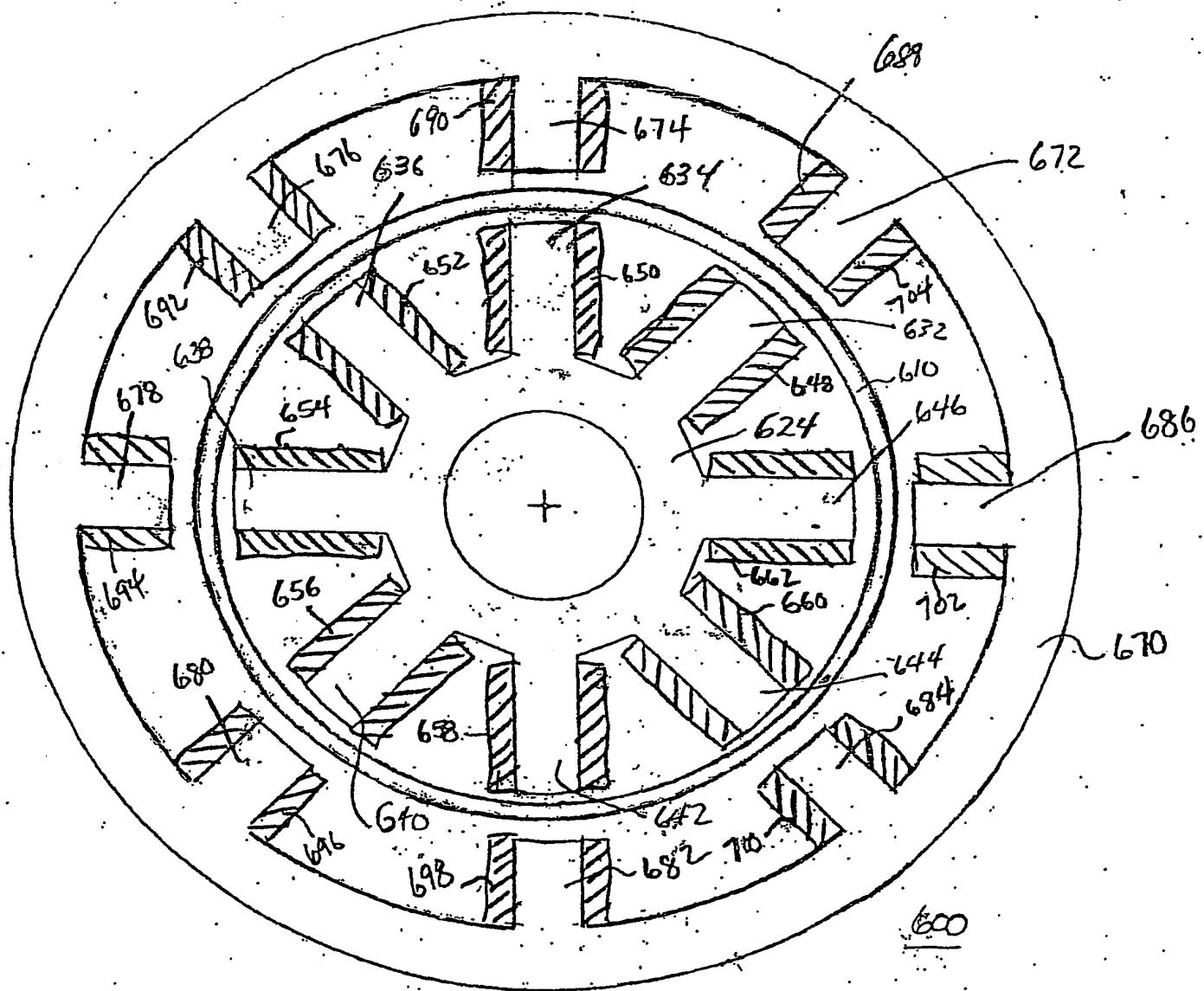


FIGURE 22

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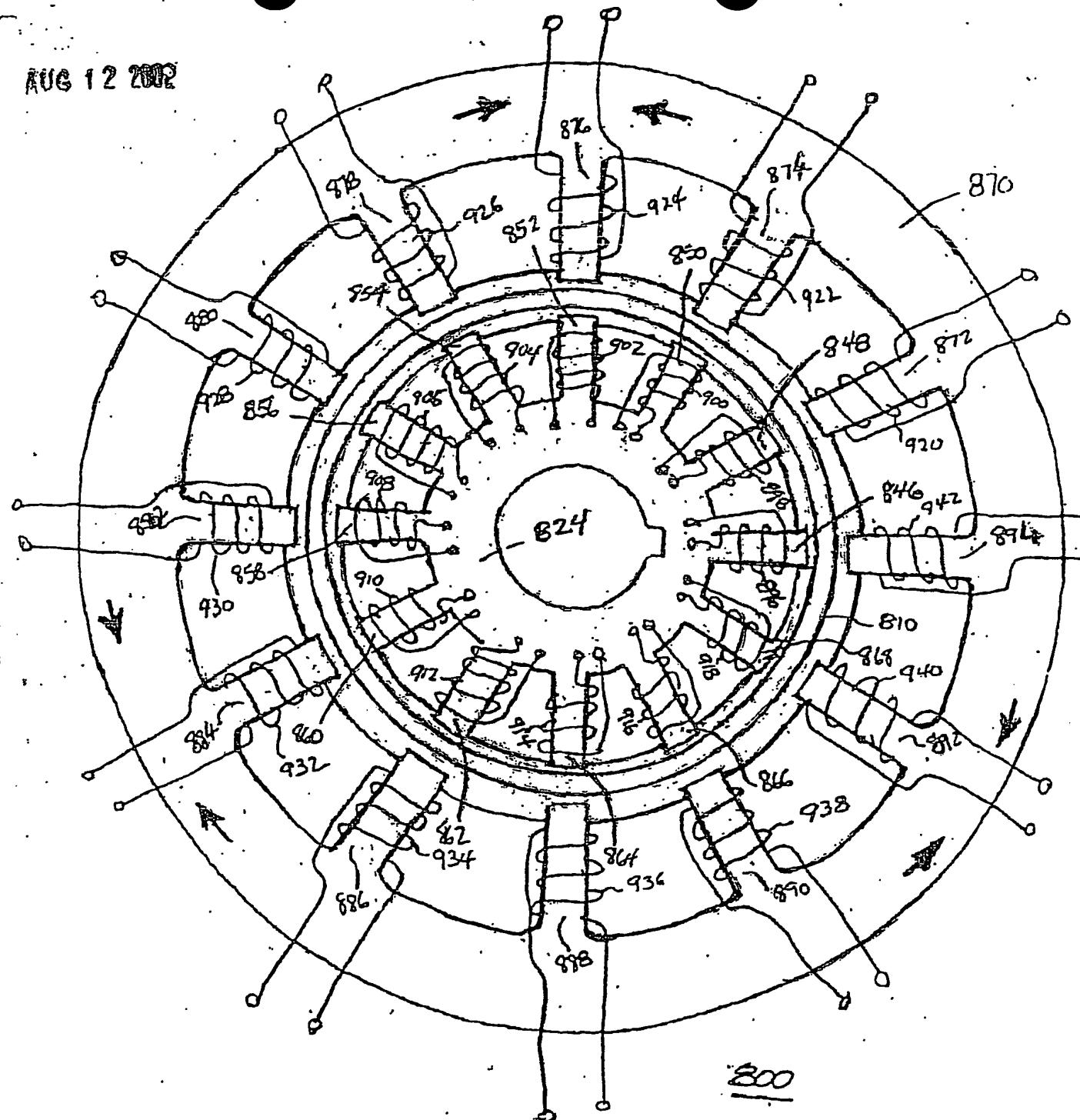


FIGURE 23

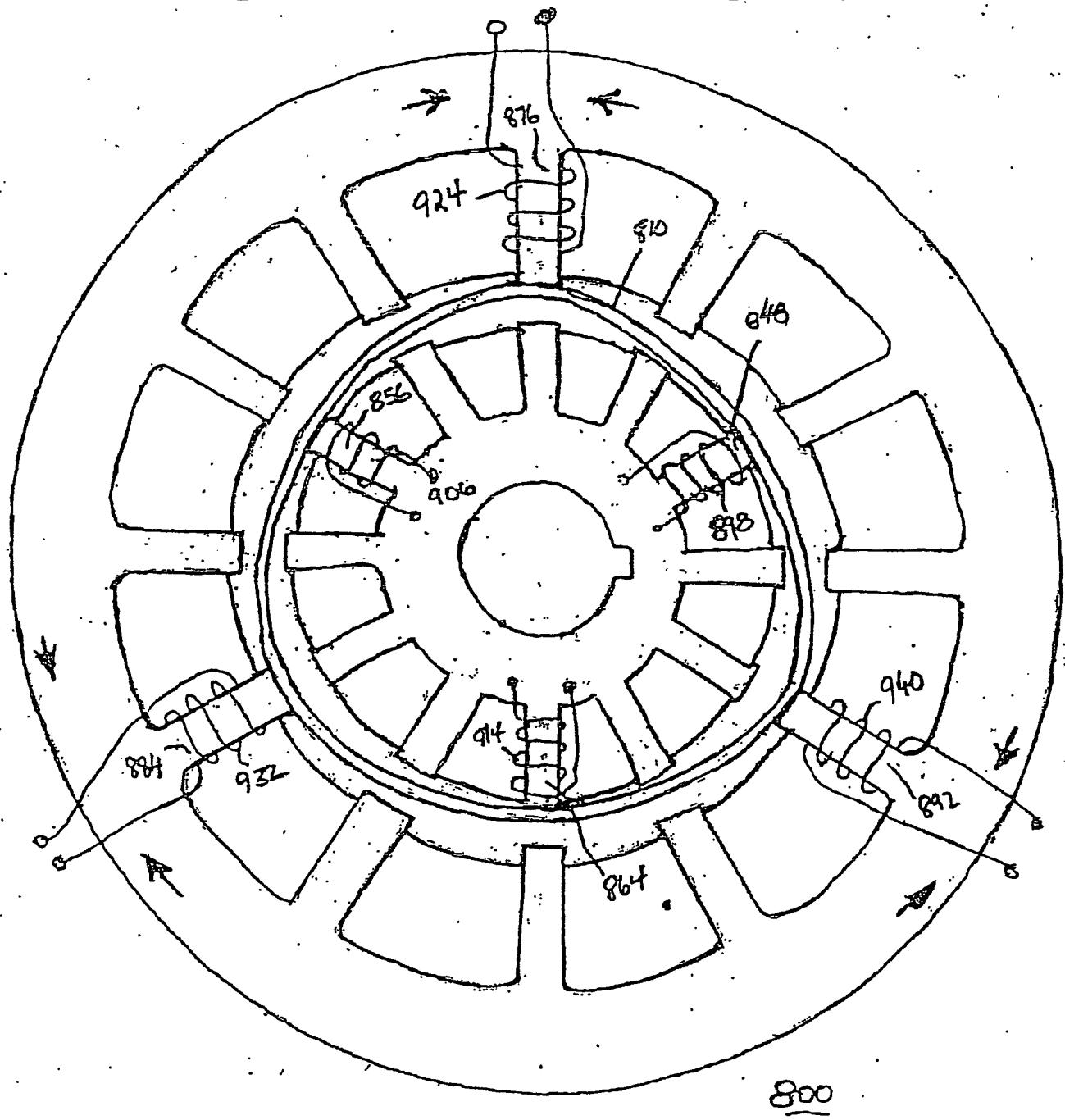


FIGURE 24

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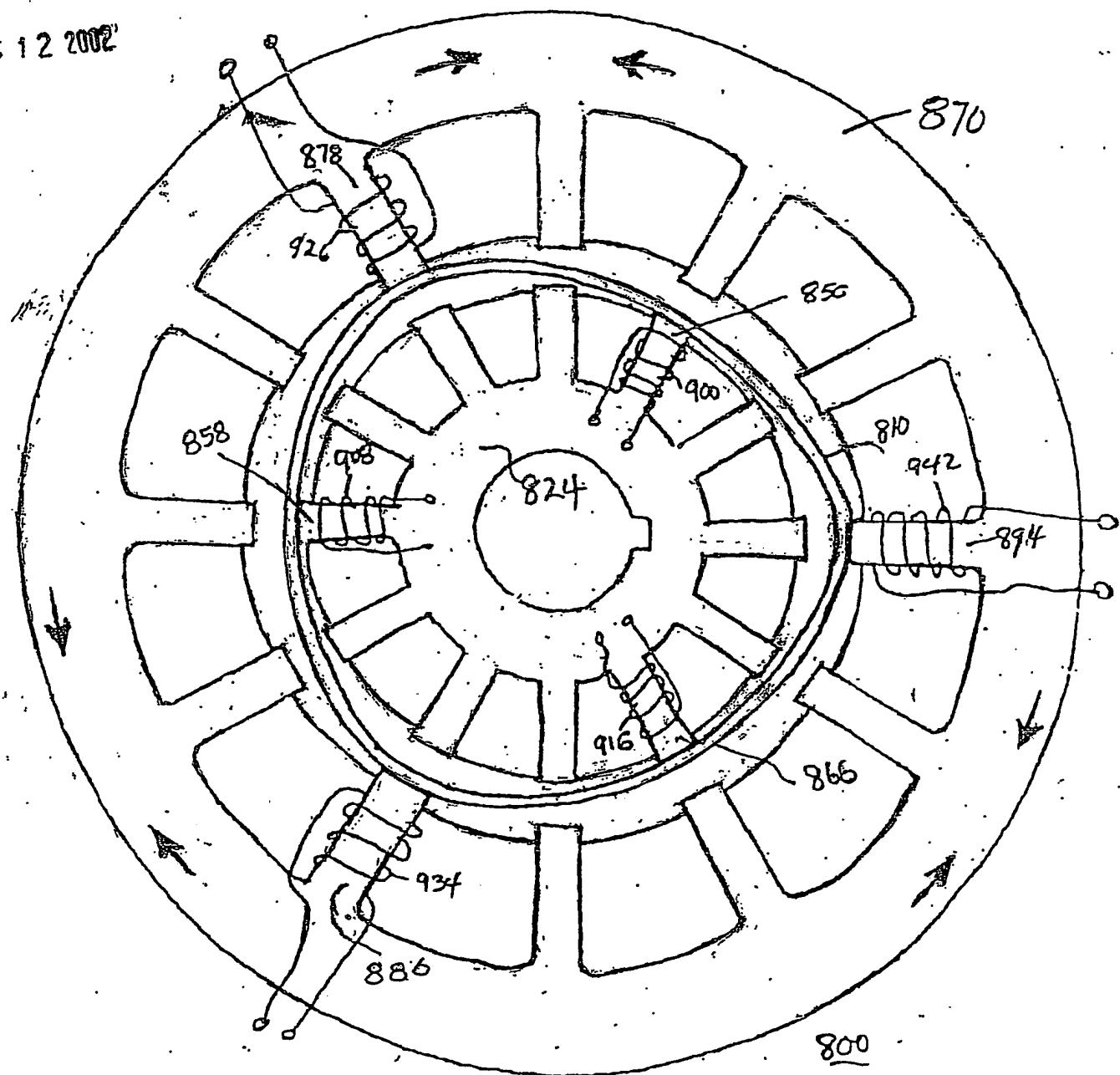


FIGURE 25

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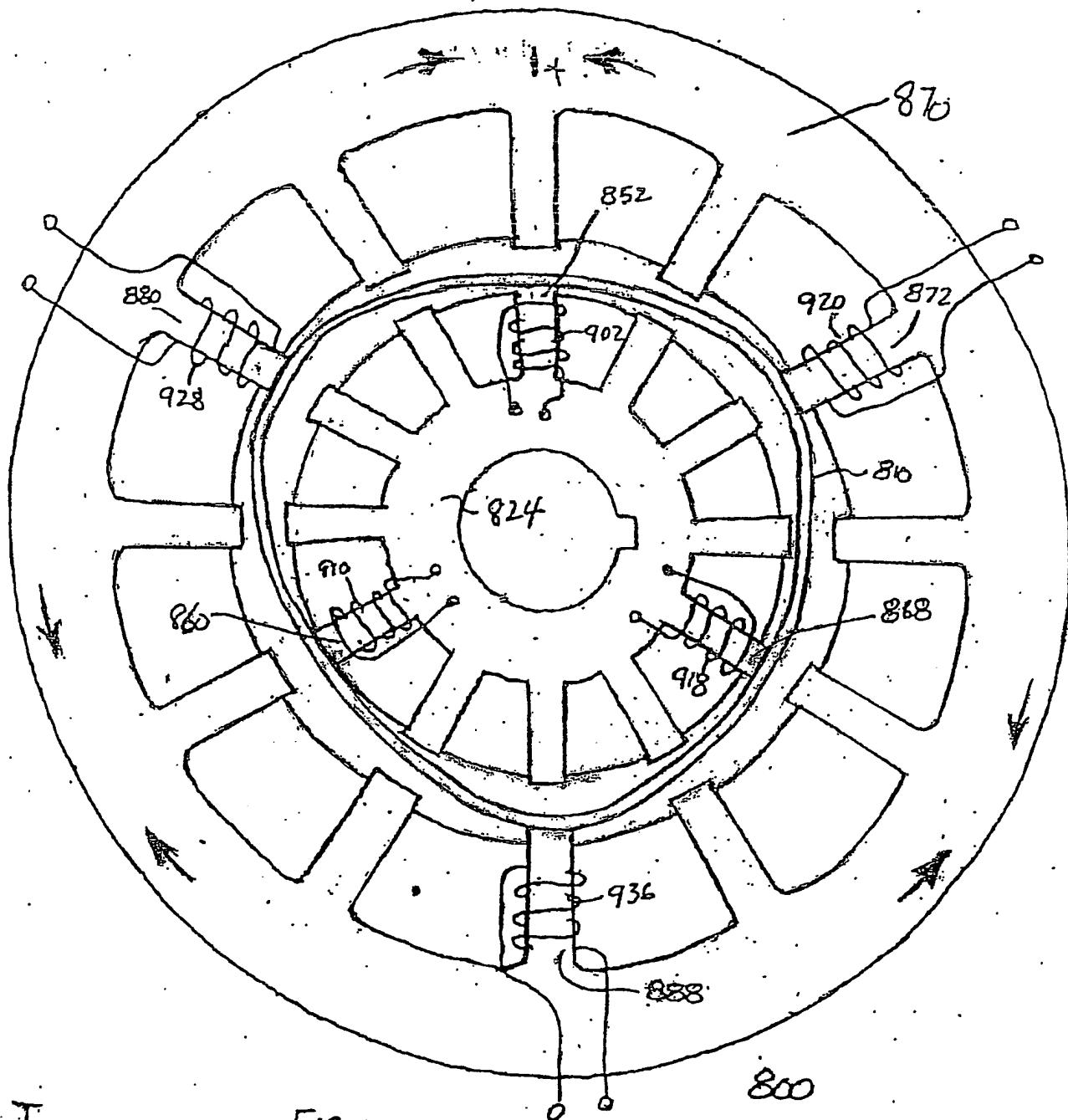


FIGURE 26

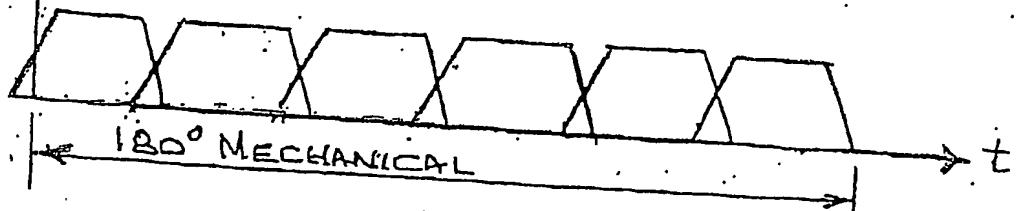


FIGURE 27

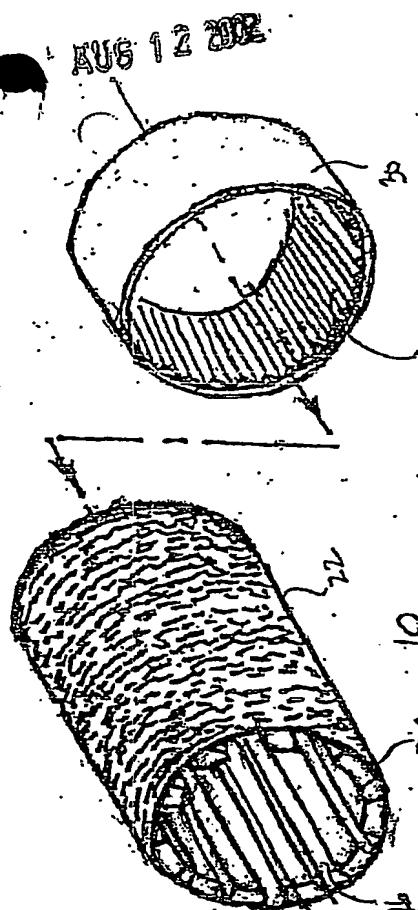


FIGURE 28

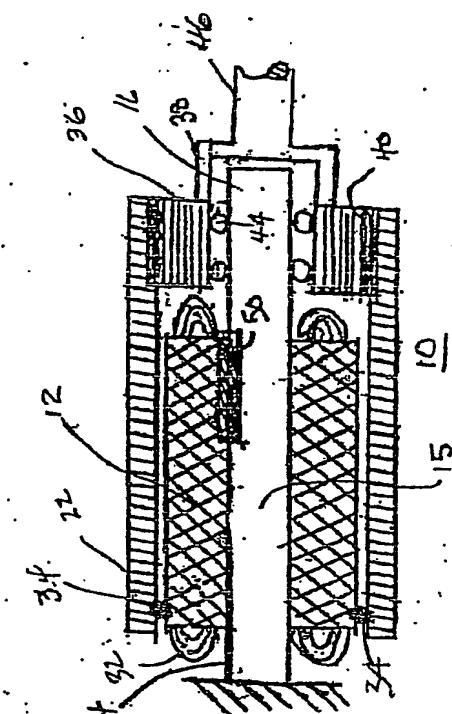
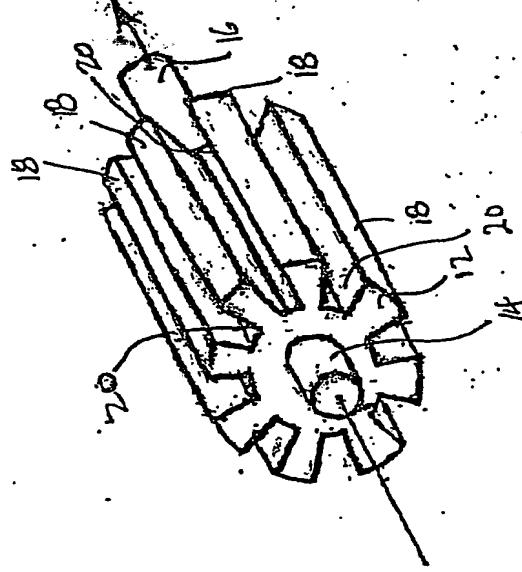


FIGURE 29

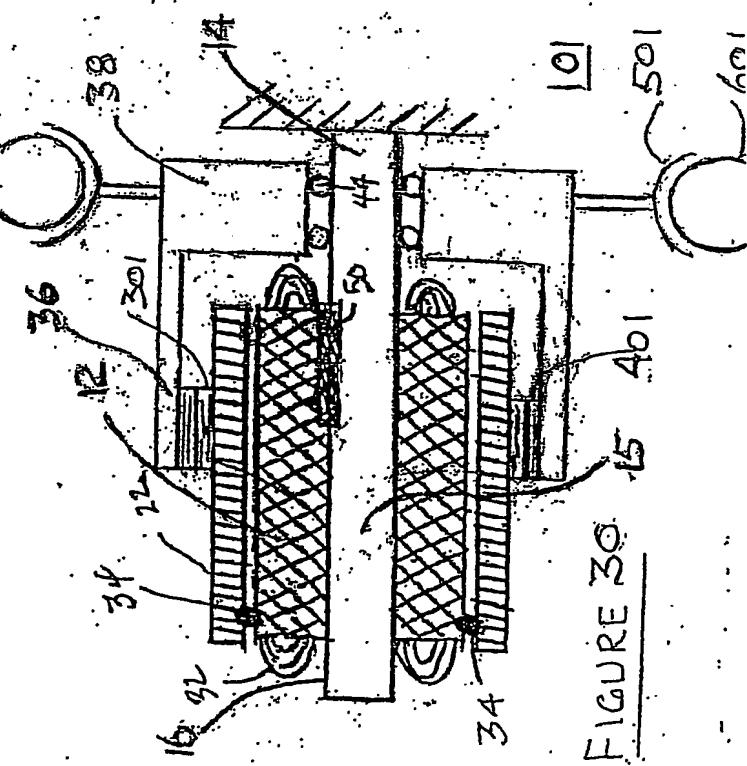


FIGURE 30

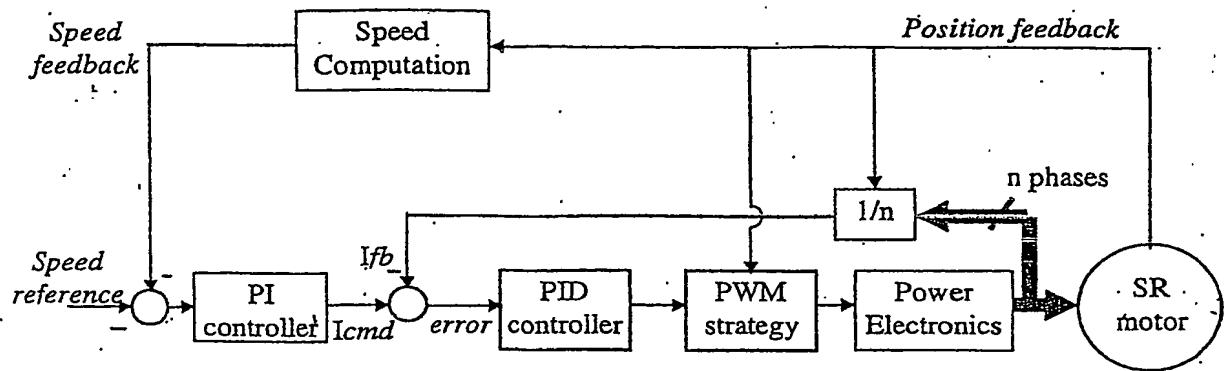


Figure A, Speed and Current Control Loop for an SR Motor

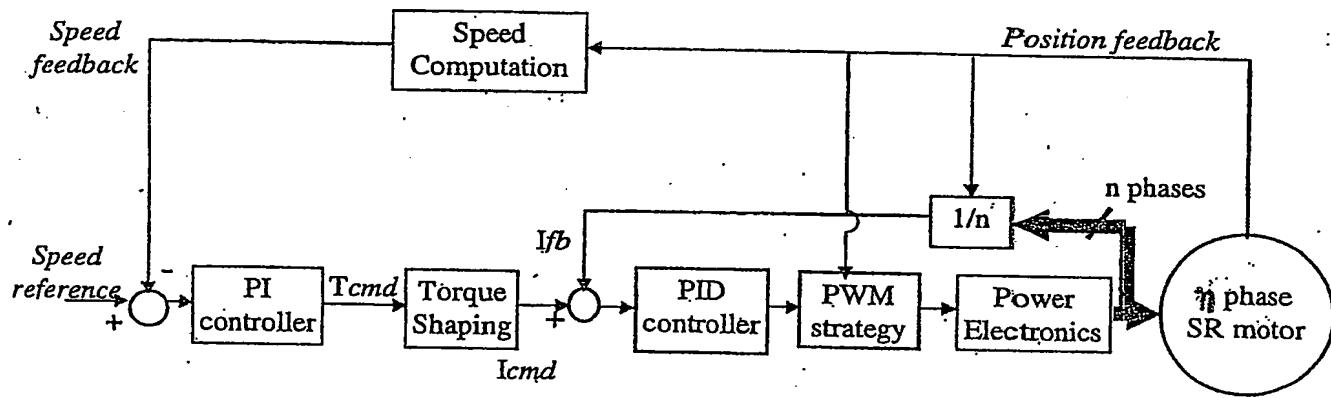


Figure B, Speed and Torque Control Loop for an SR Motor

Below is a complete drive system including the load that may be non-linear.

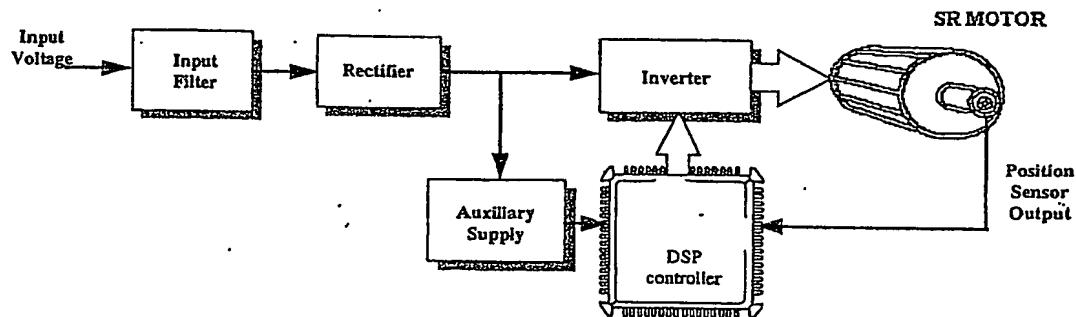


Figure C, Phase Switched Reluctance Motor Driver
(Power Electronics)

FIG 31 A, B, C.

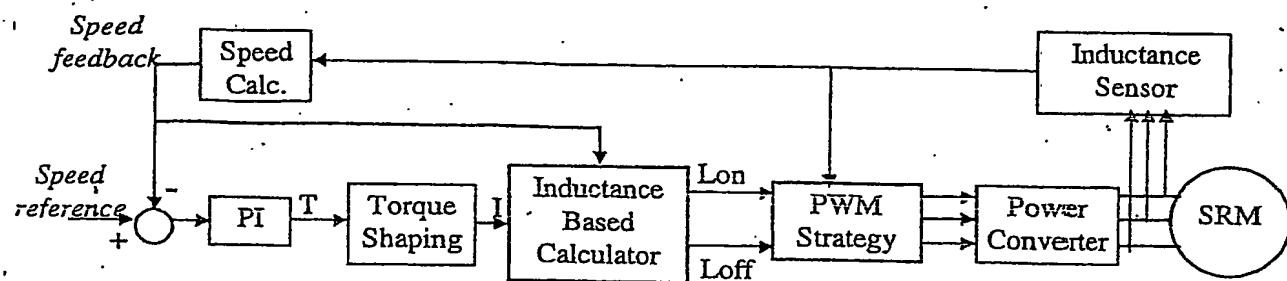


Figure 31 D Use of Inductance for Direct Commutation

Since there is at least one idle phase in a SRM the inductance of that phase can be sensed for the purpose of commutation control. The phase inductance of the idle phase is estimated from the measurements of the motor terminal voltages and currents. The commutation instants of the active coil are expressed in terms of the phase inductance value of the idle phase: Lon and $Loff$. The commutator compares the instantaneous supplied coil inductance L with the values Lon and $Loff$ and commutates the corresponding coil current.

Fig 31 D

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